MANKIND

THE JOURNAL OF THE
ANTHROPOLOGICAL SOCIETY OF NEW SOUTH WALES

Vol. 2, No. 2. AUGUST, 1936

ORIGINAL ARTICLES

Australia: Material Culture. **Goddard.**

Kopi: Funerary Skull Caps. *By R. H. Goddard.*

We are indebted in many ways to the grave mounds of the original inhabitants of this continent for information concerning their early culture and present way of life.

Among the aborigines inhabiting the Darling and Lower Murray Rivers, New South Wales, it was customary for the female relatives of a deceased person to plaster their faces and heads with white clay and gash themselves to such an extent that the blood flowed over the clay on to their shoulders.

As an instance of the reality of the grief felt by the mourners, Mr. Fred Goddard relates the case of a widow of one of his aboriginal employees. The man had been buried on Mr. Goddard's property at Louth and the widow, after donning her clay skull-cap, refused to move from the site of the grave. She wept so continuously and with such intensity that she actually lost the sight of her eyes.

The manner of making the *kopi*[1] or clay skull-cap is thus described by Mr. Goddard: "After the gypsum had been puddled into the consistency of a fine paste, a net of closely woven sinews from the legs of an emu was placed on the widow's head. The paste was then plastered over the net until it had attained a thickness of two or three inches. This process took some hours to complete and during this time the woman's head was supported at the neck by a forked stick."

Seeing that no *kopi* have been discovered on which blood stains appear, it may be that the clay used has some styptic property. It certainly has some medicinal properties, since clay was not only taken internally by the aborigines, but was used as a poultice to reduce inflammation in injured limbs.

Although it has been the custom to refer to these *kopi* as "widow's caps", their use was not restricted to women. Men sometimes wore such a cap in mourning for their mother's sisters, their own elder sisters, their wives and other blood relations of mature years.

Whilst at Tankérooka, between Wilcannia and Tilpa, Mr. Fred Goddard came across some interesting facts relating to *kopi*. One of these caps was first noticed protruding from a mound on a sand-hill. Upon excavating the drift sand to a depth of three feet, a collection of *kopi* arranged in a heap, one upon the other, was disclosed. Altogether, seventy caps were recovered from the grave. Almost

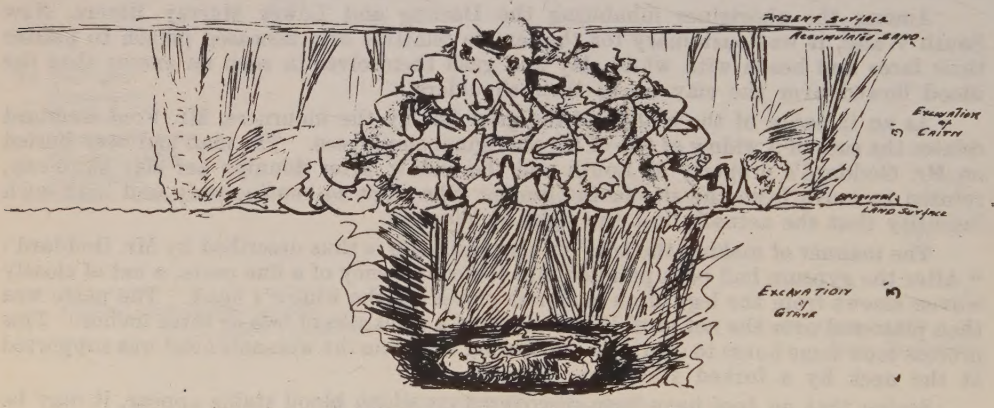
[1] The caps were called *kopi* by the natives living on Mr. Goddard's property at Yandilla. Eyre calls them *kerne*, whilst J. Bulmer states that they were called *kopi* on the Murray River. Roth also states that they were called *kopi* in Central Western Queensland.

An excellent illustration of a widow wearing a *kopi* appears in Horne and Aiston's "Savage Life in Central Australia", p. 152.

every cap had a *mundilla* " stone " thrust through it. The heap or cairn measured twelve feet in diameter and was three feet high. The *mundilla* " stones " found piercing the " widow's caps " were also made of gypsum, which was first burnt and then mixed to form a cement with sand and water. The mixture was then moulded to the required shape and afterwards finished by scraping smooth. The " stones " varied in length from nine inches to twelve inches, and were from two inches to two and a half inches in diameter. The proximal end was slightly hollowed out. The distal end terminated in a blunt point. Some were noticed with certain incised markings on them, similar to the ribs of a fern leaf, but the majority examined were plain.

The *kopi* were not all the one size, some being very large, some of medium size, whilst others were small. Some had been possibly worn by men, whilst others had been manufactured as emblems of female mourning. The latter kind were carefully placed at the base of the cairn in the form of the sun's rays and had evidently been placed upon the grave as soon as the body was buried, whereas the top ones had probably been deposited there when the wearer's term of mourning had expired.

Upon excavating the mound still further to nearly three feet below the original land surface, a female skeleton in a fair state of preservation was found. The body had been enveloped in some vegetable covering, which, although carbonized in places, was identified as Beefwood bark.



Aboriginal Grave—Tankerooka.

The usual burial practice, as demonstrated by the examination of numerous graves along the Darling River, was to place *mundilla* " stones " over the graves of males and *kopi* over the graves of females. This is the only case known to the writer of *mundilla* " stones " and *kopi* caps having been found together.

White is the favourite colour for mourning among the aborigines of Australia, but when not available other colours are substituted. On some of the tributaries of the Darling such as the Macquarie, Duck Creek, the Marra-Marra, and the Bogan, where gypsum is only found in small quantities, the mourning caps were manufactured from brown-coloured, tenacious mud, obtained from the bottoms of waterholes, with a little admixture of gypsum. A reddish yellow clay, sometimes seen cropping out on the slopes of ridges, or on the banks of watercourses, was also utilized for the same purpose. The shape of the cap was the same, no matter the nature of the material.

An interesting theory relating to the *mundilla* and based on the meaning of the word may throw some light on these mysterious implements which were buried with the aborigines. It is suggested that it was an implement for placing in notches or for cutting

notches as a step up to the spirit world, used by the spirit of the deceased in its attempt to reach the region where Bhaiame lived. *Mundilla* means "to make a foothold", and it has a relation to *mundowa*—"the footprint of the spirits". The more one studies the customs, laws, language and traditions of the Kamilaroi, the more one feels that these people had much influence over, not only the neighbouring tribes, but also the greater part of New South Wales.[2]

R. H. GODDARD.

Anthropology: Physical. **Wardlaw.**

One Use for Water. *By H. S. Halcro Wardlaw, D.Sc., F.A.C.I., Physiology Dept., University of Sydney.*

The material needs of man may be stated very simply: food and shelter. In many parts of the world, including much of Australia, his needs are simpler still, for shelter can be, and often is, completely dispensed with. Of course he needs air too, but in no part of the habitable globe is conscious effort needed to obtain this.

When the matter is examined more closely its fundamental simplicity tends to become obscured. The word food, for example, is used here in its broad sense to include everything which must be swallowed by the normal individual to maintain life. The food requirements of man are still the subject of active research. About many of his requirements very little is known. Many others, doubtless, remain yet to be recognized. Admittedly the items of the last two groups are necessary only in minute amounts, but this fact does not lessen their importance.

It is interesting to consider, however, not these esoteric qualities of the food, about which the doctors are busy disagreeing, but the simplest and most abundant of them all: water. Here again, unfortunately, scrutiny of detail reveals unsuspected complications. Water may still be the simplest of our foods, but it is by no means as simple a substance as it was once thought to be. It is not the purpose of this article, however, to deal with these, the perplexities of the subject, but with one of the more general, and dare we say, simpler, of its functions in the human body.

Knowledge of the fundamental importance of water to life is shared by us with most living things. Long before he knew anything about the composition of his body, man knew that although deprivation of solid food could be survived for weeks, deprivation of water led to death in a matter of days. There are scientifically attested instances of men having fasted for over a month, and dogs for over three months without any lasting ill effects. No similar experiments have been carried out on man on the effects of deprivation of water. Unlike deprivation of food, which can be borne with comparative comfort if conditions are otherwise favourable, the suffering entailed by prolonged abstention from water is so acute, and the effect on the body and mind so serious as to render the most ardent would-be martyr unsuitable for further experiment before his life is actually endangered. Statements as to the period for which man can survive deprivation of water therefore lack precision. The extreme period which has been recorded, with reasonable claims to authenticity, is about seven days. Most of the evidence indicates that the period survived is usually much less than this. Further, the unfortunate victims of these experiences, unlike the fasters, did not recover their former health. Their bodies had been permanently damaged. It must be remembered, however, that these individuals were often subjected to very severe conditions of exposure and exertion as well as of thirst.

The need for water as a constituent of the body seems evident enough when one remembers that two-thirds of the body are composed of water. All the bodily activities

[2] For other matter relating to the subject of this article the reader is referred to *Proc. Linn. Soc. N.S.W.*, II, 334, 1899; R. H. Mathews, "Some Burial Customs of Australian Aborigines", *Proc. Amer. Phil. Soc.*, XLVIII, 1909; *Qland. Geog. Journ.*, XXIV, pp. 63-69; Rev. J. Ridley, *Aboriginal Customs*; W. Freeman, *Aboriginal Burial Rites*; Sir T. L. Mitchell, *Three Expeditions into Eastern Australia*, I, 252, London, 1838.

take place in aqueous solution, and this solution can suffer only slight variations of composition without serious derangement of bodily function. The more closely this aspect of the body is studied, the easier it becomes to accept the current hypothesis that our remote ancestors were aquatic creatures. Indeed, the living units of our bodies are aquatic creatures still.

This use of water in the body is one that is common to all living things. Its study is a subject of enormous complexity. The solution of the problems which it presents will reveal much about the mechanisms of life which are common to the most primitive and the most highly evolved of living things. But it is another, and, it is hoped, simpler function of water which it is proposed to discuss. Curiously enough this function is restricted to the most complex organisms. This is the part water plays in keeping the temperature in the vicinity of a constant level. It does this by evaporating from the surfaces of the body at such a rate that heat is removed at the same rate as it is produced by the body and absorbed by it from the surroundings.

In many countries, among which is a considerable portion of Australia, the temperature of the environment is, for part of the day, higher than the temperature of the human body. Under these conditions all the heat produced by the body can be removed from it only through the agency of water. The higher the external temperature and the more active the individual, the greater is the demand for water for cooling purposes. Under temperate conditions an average man, one doing a moderate amount of mechanical work, requires about three pints of water for cooling purposes each day. The same man doing the same amount of work while his surroundings were at a temperature the same as that of his body would require about four times this amount of water. The amounts are in addition to that required for other purposes, which would be about two pints.

If the man under consideration were exposed to a still higher temperature, then he would absorb heat which would have to be carried away by the evaporation of additional water. Under these conditions the requirement of water may rise enormously. For example, in some recent experiments carried out by Professor Davies in Central Australia, the rate of loss of water by evaporation while at rest in the sun rose to nearly twenty times what it was under similar conditions in the shade. Even with this enormously increased evaporation heat was not lost by the body as fast as it was produced and absorbed, and the temperatures of the subjects began to rise.

One might imagine that the aborigines of regions such as this would have adapted themselves to their conditions, and so no doubt they have, but not in the way that might perhaps have been expected. It is one of Nature's little ironies that those hot, arid regions where water is most effective as a cooling agent are just the regions where water is hardest to get. In the hot humid regions where it is plentiful, its power of removing heat by the evaporation of water may be seriously diminished. It might have been expected that peoples who have lived in hot dry regions from time immemorial would have developed some physiological means of economizing water. The quantity of water required to remove a given amount of heat by evaporation is, fixed of course by a physical, not a physiological property, the latent heat of evaporation of water.

It comes as a surprise to find, therefore, that the Australian aboriginal, the only indigenous inhabitant of a hot dry climate whose rate of evaporation of water has so far been measured is not less, but more prodigal in the physiological use of water than the man who comes from moister and more temperate climates. On closer examination, however, one finds that Nature has not blundered. The naked aboriginal of Central Australia has to deal not only with the heat that he produces and absorbs from his surroundings, but also with the light which he absorbs from the sun's rays. He can, and does, reduce the amount of heat which he has to lose by reducing the amount which he produces. He is able to do this partly by reducing his voluntary physical activity as much as possible, especially during the hotter periods of the day, and partly by reducing

the energy expenditure needed to keep his bodily mechanism running even when no outside work is being performed. This is an adaptation not within his control. Another factor of advantage in this respect is the meagre diet on which he must at times subsist. The ingestion of food increases the heat produced in the body in proportion to the amount taken. The aboriginal's control over this factor is to a certain extent voluntary, or could be so. But when conditions are such that food is easily obtained, he gladly sacrifices any advantages which might accrue from a sparing diet.

He has also obtained some control over the absorption of light by developing a deeply pigmented skin. Light of the shorter wave lengths is definitely harmful to living tissues. This light is absorbed by the pigment of the skin, which thus protects the tissue below. The energy of the absorbed light is converted into heat.

The pigment of the skin also absorbs heat from the sun. Sir Charles Martin showed that the skin of a negro absorbed about thirty per cent. more heat from the sun than the skin of a white man. It is interesting to notice that in the experiments on exposure to the sun in Central Australia it was found that the aboriginal evaporated water about thirty per cent. faster than the white man.

Thus the dark skinned man has protected himself against the immediate, and serious, danger of sunburn in his natural environment. But he pays for this protection by being loaded with an extra amount of heat which must be got rid of under conditions under which the loss of heat has already become difficult. He is forced to more lavish expenditure of water in regions where the supply of this may be the deciding factor in survival.

In spite of this extra load on his mechanism for the evaporation of water, the experiments referred to have shown that the Central Australian aboriginal is better able to maintain a constant body temperature in hot dry conditions than is the white man. Here as elsewhere Nature has had to compromise in the matter of physiological water economy between a greater and a smaller evil. This she has done with her usual success.

H. S. HALCRO WARDLAW.

Papua: Social Anthropology. **Williams.**

Papuan Dream Interpretations. *By F. E. Williams, M.A., B.Sc., Government Anthropologist, Territory of Papua.*

The subject of this article has been chosen in response to editorial request. Having only the slighest acquaintance with the study of dreams in general and never having enquired fully into the dreams of any particular people, I was at first reluctant to attempt it. But the random notes which I have made will at least admit of classification, and may justify some theorizing. These notes are drawn from the Purari Delta, Orokaiva, Suau, Motu, Morehead and Elema peoples—a wide selection of cultures. An intensive treatment limited to any one of these might have yielded more profitable results, but I must confess that I am unable to attempt it.

It is plain that the dreams of any people, whether primitive or civilized, have both a psychological and a cultural aspect; and Seligman in recommending a closer co-operation between the two sciences of psychology and anthropology has dwelt upon this study as providing ground common to both. It is continually evident that, for an understanding of primitive dreams, anthropology cannot do without psychology, nor *vice versa*. But in this article, which concerns mainly the overt interpretations placed upon dreams by the dreamers themselves, there will be no attempt to psychoanalyse. It is no doubt true that psychoanalysis may throw a new light upon the native's dreams, as upon our own. But there are aspects of the subject upon which I doubt whether it throws much light at all, and it is with these aspects that I propose to deal. We are not concerned with the psychological function of dreams, but mainly, to repeat, with their

overt, conscious, deliberate interpretation. In seeking to account for this interpretation anthropology may employ the terms of psychology without calling in the aid of that branch of it which is named psychoanalysis.

I shall deal first, very briefly, with native theories as to the causation of dreams; next with the general attitude towards the dream, the sense of its importance or unimportance; then with the problem of why dreams come to be interpreted at all; and finally with the nature of the interpretations themselves.

Native Theories of Dream Causation.

As a student more or less familiar with the Tylorian hypothesis, I expected, or perhaps rather hoped, when I first began field work in the Purari Delta, to find a clear theory of dream causation. But in that region at any rate I was struck rather by its absence. The dream (*aiaro*) was accepted so to speak in its own right, as a phenomenon that did not demand explanation. No one ever suggested that the dreamer's spirit (*a'avaia*) left his body during sleep, or that another's *a'avaia* came to visit him; and in response to certain leading questions I was told more than once that nothing of the kind took place. A man simply dreamed his dream and there was an end of it. Curiously enough it was stated that the *a'avaia* of certain supernatural creatures such as the *kaiemunu* did visit people in dreams, and I have no doubt that by pressing hard enough I could have elicited the same explanation for the ordinary dream in which these creatures played no part. But the fact remained that the ordinary informant did not think of putting it forward.

Among the Orokaiva, on the other hand, it was said plainly enough, in explanation of the dream, that a man's *asisi*, or spiritual counterpart, could leave him while he slept and that he could at the same time be visited by the *asisi* of others. The same explanation, or at least the second part of it, is implicit in accounts of dreams by Motuan informants (*hanihia* means "to cause to dream; hence to appear as a dead person in dream"). And I have heard a very similar theory among the Elema. Yet even so I do not believe that the native ordinarily thinks of the dream as other than a natural occurrence. And coming to the Morehead River district I find I have recorded a "general absence of theory" on the subject. Informants asked for an explanation merely reiterated "It is a dream". They suggested it might be the *burumbur* (spirit) of the man dreamed of that was seen, but were not confident.

From such inquiries as I have made, then, it appears that when an explanation of the dream is actually given it is regarded as an experience of the sleeper's spirit, either travelling abroad or receiving visits from other spirits; but I see a strong tendency to take the dream for granted, as a phenomenon that does not cry out for explanation. This falls into line with the view which I have formed on other evidence, viz. that the native, or the primitive, takes a great deal for granted; that he is not specially given to psychological introspection and does not feel bound to delve for recondite explanations of every-day, or every-night, experiences.

The Cultural Importance of Dreams.

Coming to the second subject, that of the native view as to the importance of the dream, we find a good deal of variation. It is well known that some individuals dream more than others, just as it is plain that some have better digestions than others. But whether some *peoples* dream more or less than others is a question which it would be far more difficult to answer. It is perhaps probable that the ordinary run of natives dream less than we do, if only because they live less hectically and—I really believe—eat and drink less extravagantly. On the other hand, they are more given to fasting than most of us, and it is said that an empty stomach conduces to dreaming as much as one that is too full. Leaving this question unanswered, we are still entitled to assume

that natives dream frequently enough, and one may assume with equal safety that much of their dreaming goes for nothing; that they forget their dreams as readily as we do, and in many cases attach no importance to them whatever.

Some dreams, however, are sufficiently vivid, amusing, alarming, or merely interesting to be remembered, and to these the native may attach some significance. He is prone to place some interpretation upon them, particularly in regard to the future; though often, I believe, it is a matter of delayed or retrospective interpretation: the dreamer waits for the dream to fulfil itself, or perhaps some subsequent occurrence serves to recall it. I shall give a few examples of this delayed interpretation later on, for it is perhaps an important consideration in explaining how dreams so often come to be regarded as prophetic.

In the meantime it is certainly true that this prophetic significance of dreams is a very widespread notion. Without ever pursuing the subject methodically, I have made notes on it among the Orokaiva, Suau, Motu and Morehead natives, and I have no doubt whatever that similar notes could be made among those of the Purari Delta and Gulf Coast (Elema). The nature of the actual interpretations we shall discuss presently. Here we may note that the omen is, often at least, taken seriously. Suau informants tell, for instance, the following actual dreams: (1) A canoe without any outrigger is full of people. It capsizes and the people sink. (2) A man is seen felling a coconut. (3) A house in the village of an informant's wife is seen to have its "nose" or peak broken. These all portend death, and there is as little doubt that the omen is seriously regarded as that it will be eventually fulfilled. Again, Tembare, an Orokaiva, dreamt that he was on a canoe with Emumu and the latter's wife; the canoe was upset; the two men escaped and the woman was drowned. Tembare told me the dream in secret. He did not like to tell Emumu because he knew that the woman must die. There is a whole list of examples, even within the narrow limits of my inquiries, of dreams in which the omen, ranging from death down to shooting a wallaby, is expected to find justification in the event.

Then there is a sort of secret intelligence system based on dreams. An Orokaiva dreams of a pile of coconuts: it means to him that his taro are well grown and are ready for digging. Another dreams that he sees a certain woman stealing taro from a garden; and he has no doubt that she did steal, though he declares that he is not going to let on. Again, I remember an Orokaiva divulging a dream one morning to the effect that he had seen such and such a person performing the rites of sorcery. It was apparently a genuine dream and the person identified as sorcerer took it amiss. In a great temper he burnt his string bag (in which he might have been carrying "medicines") to show at once his innocence and his indignation; while the dreamer, alleging now that his dream had "lied", killed a pig to placate him. The dream was thus formally discounted, but it cost a good string bag and a pig to pass it off.

Among the Orokaiva there was even the practice of inducing dreams, one of the methods being to heat an *evo* leaf in the fire and lay it over your eye when you went to bed. This caused your "eye to walk about", and enabled you to spy, for instance, on an absent wife. We are here getting close to a use of dreams which is to some large extent fictitious. That is to say, the dreams are cited by those who lay claim to rapport with supernatural powers; and in studying these we must always be at a loss to know whether the dreams are real or whether they are invented for the purpose in hand.

Among the Orokaiva it was for instance believed that the Taro men were dreamers in especial, and they took full advantage of this belief, which they themselves no doubt originated. They professed to be in constant communication with the *asisi*, or spirits, of the dead, and their own *asisi* visited the taro gardens in their dreams.[1] In the Purari Delta certain individuals claimed to receive visits from the *kaiemunu*, the supernatural beings represented by great wicker monsters kept in the interior of the men's houses.

[1] F. E. Williams, *Orokaiva Magic*, Oxford Press, 1928, pp. 14, 36.

And in the Gulf Division certain sorcerers, who made play with the small carved coconut charms called *marupai* which they could send on messages, professed to do so through the agency of familiars whom they had met with in dreams. Others had similar communication with the *kora marita*, bush spirits, or " maidens of the trees " : they were warned or advised in dreams about their hunting. And when a new *kovave* mask was added to the long list already in existence, it was usually—at least according to the originator—as the result of a dream in which he had met the spirit who was eventually represented by the mask.

There can be little doubt that a large number of these alleged dreams are sheer figments. But the fact remains that they " go down " with the population at large ; and this in itself shows the importance which can be attached to dreams as a supposed means of communication with the supernatural world.

But it would be unreasonable to suppose that all the dreams told by those who claim communication with the supernatural or spiritual world were fabrications. We have had in Papua perhaps more than enough examples of a kind of religious movement which has led whole tribes and peoples into the most remarkable changes. Notable instances upon which information has been published are the " Baigona Cult " and the " Taro Cult ", both of the Northern Division, and the " Vailala Madness " of the Gulf Division.[2] There have been many others. In most of them it is possible to trace their immediate origin to individuals who profess to have received their inspiration from dreams or visions. It is probable that some at least of these experiences are authentic : indeed it seems a likely explanation of the fantastic features of some of these cults that they did actually originate in this manner. Considering therefore the importance which can on occasion be attached to dreams in popular belief, we must recognize that, true or false, they may have played a very significant part in the shaping of human culture.

Why are Dreams Regarded as Prophetic ?

The importance of dreams in this respect is of course due to the common idea that they possess a prophetic, or at least informative value, and we are thus led to consider the question of the interpretations that are put upon them. But before addressing ourselves to this task we might ask the preliminary question : Why do dreams come to be interpreted at all ? How does it come about that the native, or anyone else, thinks that they foretell the future ?

By way of attempting to answer this question I would refer to those cases of delayed or retrospective interpretation which I mentioned previously. I remember a housemaid in the paternal establishment who would be heard now and again to exclaim, at some incident or other in the course of her day's work, " Ah, there, that's broken my dream ! " She would then explain she had dreamt of the incident or at least of something resembling it, some time ago. It was as if the influence of her dream held until the thing it foretold came to pass. Then it ended ; her dream was broken. I am sure that Amanda's dreams were far more numerous than the fulfilments she observed. Most of them no doubt ended undramatically ; they died a natural death ; in fact she forgot all about them. But there were cases where a coincidence, some chance similarity between her dream and her subsequent waking experience, made it appear as if there were some bond between the two.

An Orokaiva native who had once served as a juvenile houseboy to a very fat magistrate recounted to me a dream which had a similar dramatic substantiation. After leaving the magistrate's service he had seen him again in a dream, trouserless and striving to pull on his shirt. As he bent forward his bare posterior swayed from side to side in the violence of the struggle, and this naturally struck my informant as very funny. I gather that he did not regard the dream as specifically prophetic, but some

[2] See Chinnery and Haddon, " Five New Religious Cults in British New Guinea ", *Hibbert Journal*, XV, No. 3, and the writer's *Vailala Madness*, etc., Govt. Printer, Port Moresby, 1923, and *The Taro Cult in Orokaiva Magic*, Oxford University Press, 1928.

time after (of course he said "next day") he went hunting and saw an enormous pig drive head-on into the net, and there, while it plunged about with its head enveloped in the meshes, he saw its bare hindquarters swaying hither and thither, exactly like those of Mr. X. He might well have exclaimed: "My dream is broken!" merely because he was reminded of it.

In such cases the dream merely awaits interpretation, which may or may not come. Ahuia, a native of Hanuabada, recently wrote his reminiscences. "One night", he says, "I dreamed I saw plenty of fish in the sea, all dead. I woke up and thought, 'What is the meaning of the dream?' While I was thinking of it a dreadful sickness was epidemic through all the villages and plenty of people were dead." Another of Ahuia's dreams is worth quoting: "In the year 1914 I was a court interpreter. I had a dream one night that a big wave floated up higher than Paga Hill and broke upon Port Moresby township. The town was in this wave. In the morning I woke up and thought what should be the meaning of this dream, and what should happen. About two days over, the news was heard that Germans and English were met. I was told that a big war is now starting. I knew that is the meaning of the dream I dreamed." Ahuia's dreams might have admitted of many interpretations. But the striking events which followed them provided the interpretations which thereupon seemed to him obvious. I have no doubt that if Ahuia dreams again of a big wave enveloping a town he will predict a war without waiting for it.

Morehead informants, with something of horror in their voices, told me of a remarkable case which had achieved some celebrity. One of their people dreamt that a dog copulated with him.[3] Some time afterwards the man died. My informants made it perfectly plain that they associated the death with the dream. I took it as a case of *post hoc ergo propter hoc*. But if it was not that, it was at least a case of the fulfilment of a sign. The significance of the dream was revealed by the event.

Such cases of retrospective interpretation suggest a means by which a prophetic significance comes to be attached to dreams in general. The striking dream and the striking event which follows it may come to be associated. If the one does not actually cause, then it at least foretells the other. And if one dream is thus proved to have prophetic significance, why not all?

The habit of regarding dreams as prophetic is so widespread throughout the world, and so ancient, that it would be ridiculous to guess any time, place or manner for its origin. Incidentally I think it would be equally ridiculous to assume that the habit had a single origin. I suggest, on the contrary, that it may be born and reborn, again and again, wherever and whenever a striking dream is followed by some striking event which serves to recall it. The habit is based on the fallacy of *post hoc ergo propter hoc*, and this fallacy is universal, prior to, and independent of all dissemination of cultrue.

In order to make my meaning perfectly clear, let us take the hypothetical case of Smith. He is a man in the street, uneducated, but sensible enough not to believe that dreams are omens. We may assume that he has never even heard of the belief. One night, however, he dreams that he sees an eagle perched on the kitchen chimney-pot. He recounts this dream to Mrs. Smith over their morning porridge, and they are both no doubt amused, but attach no significance to it whatever. As he is leaving home for his work, however, Smith looks back and sees a crow on the chimney-pot. If this is an unusual occurrence he would be sufficiently surprised at the sight itself, but under the circumstances he is positively astounded, and Mrs. Smith still more so. The story goes the round of the neighbourhood in no time, and the belief in oneiromancy is born again. Nor is it essential that the striking dream and the striking event which follows it should have any inherent resemblance to one another. I am sure that if the kitchen chimney caught fire during breakfast Mrs. Smith would not fail to connect the occurrence with her husband's dream.

[3] The Morehead men are all sodomists. In this dream the dog had sodomized the man.

The Native's Dream Interpretations.

Leaving now the question of how this habit of dream interpretation may have arisen, and taking the habit itself for granted, let us consider native dream interpretations proper, i.e. those which are put upon the dream before anything has occurred to suggest them.

The cases which I have collected seem to indicate several categories for dream interpretations in general. They are, to give them names, (*a*) individual, (*b*) conventionalized, and, possibly, (*c*) universal.

(*a*) *Individual Interpretations.*—These are spontaneous and naturally very variable. A man having had a dream may, if he trouble to vouchsafe an interpretation at all, suggest anything that occurs to him. The basis for his suggestion is no doubt some association of ideas in his own mind, usually some point of similarity between the dream and the thing it is thought to portend. They have at least something in common. Thus an Orokaiva dreamt that he was carrying on his shoulder a number of string bags (*hetava*). He therefore went hunting flying foxes and, as it happened, succeeded in killing a number. This interpretation might seem a far cry, but there is a point of resemblance which I believe accounts for it. The cluster of bags hanging from the dreamer's shoulder is like a cluster of flying-foxes hanging upside-down from a tree branch. Again, an Orokaiva youth dreamt of an armshell; his thoughts turned to policemen and arrest, and he says he actually took to the bush (the last is probably a dramatic exaggeration). The association is armshell-handcuff.

Such interpretations are naturally subject to cultural conditioning. When the Suau informant dreamt of the canoe without an outrigger which capsized, he might have thought of death in any case; but the fact that it was a mere dugout made it certain, for such a dugout, as he himself explained, is used for a coffin. When another Suau man saw a coconut palm being felled, he interpreted it as meaning a death because it is the custom at Suau to fell a palm as a rite of mourning. When a man on the Morehead River dreamt of the collapse of a house he concluded that he would catch a pig in his trap, because the people of those parts build the log trap which collapses when a pig enters it. Needless to say the interpretations might have taken some other form but for the presence of these elements in the cultures to which the dreamers belonged.

The foregoing examples, I suggest—though it is impossible in any case to be sure—might be quite original interpretations. Where the dream is unusual and there exists no precedent for interpreting it, then a man may either simply wait to see what happens, or else, if he feels so inclined, put his own interpretation upon it immediately; and in the latter case it can hardly be other than individual and original.

(*b*) *Conventionalized Interpretations.*—I suggest, then, that dream interpretation may be quite spontaneous and that the same distinction is to be observed here as between spontaneous and conventionalized magic.[4] It is difficult, however, to know when we are face to face with a truly spontaneous interpretation, for the spontaneous form grows or solidifies into the conventionalized, and a man will tend to adopt the latter if it is available. If one man dreams, for instance, of string bags, interprets the string bags as flying foxes, and finally tells about it, then the next man who dreams of string bags—if ever anyone does—will be likely to interpret them again as flying foxes. The interpretation, originally spontaneous, may become set, conventionalized.

Where much importance is attached to dreams as portents it seems likely that there will be a large fund of such conventionalized interpretations on tap. Informants can usually supply a number of obviously stock examples. Among the Orokaiva, for instance, if you dream of a *liana* you will catch a snake in the bush; if you dream of a hole in the ground, someone will die; if you dream of breaking a *tauga* nut, you will catch a pig; if you dream of anyone shaving or hair cutting, you will likewise catch a pig or a big snake. The association is easy enough to guess in most of these cases: the

[4] See *Orokaiva Magic*, page 171.

liana resembles the snake ; the dead are here buried in holes ; and bush pigs are always breaking *tauga* nuts. The last is not so plain. Does the shaving suggest the glabrous skin of the pig or the snake, or is it perhaps the result of a coincidence, the man who dreamt of the shaving in the first place having caught a pig or a snake soon afterwards ? Other such interpretations among the Orokaiva, all apparently conventionalized, are more or less easy to understand. Dreaming of a spear means you are in danger of a snake bite ; to dream of anyone carrying a bunch of bananas or a block of sago means he or somebody else will catch a pig ; to dream of a dog means that you will hunt successfully for a cuscus ; to dream of swimming in water, that your taro will flourish.

Some of the general interpretations of dreams given by the Motuan Ahuia would appear to be similarly conventionalized ; at any rate he sets them down as so many rules. To meet men wearing cassowary feathers means you will kill a pig ; to see plenty of bananas and betel nuts, that you will catch plenty of wallabies or fish ; to see a big flood, that fighting will follow[5] ; to see a swamp with many crocodiles, or a hill covered with stones means that your gardens will be productive ; and so on. It might be possible to suggest some mental associations which in these cases would link up the dreams with the things they portended ; but the connections remain very obscure. It may be that some of them came about in the coincidental manner already spoken of rather than by mere association of ideas.

I will give finally, under this head, a few Morehead examples : To dream of women wearing the voluminous mourning garments called the *makamaka* means that you will kill a cassowary. I thought the connection here was one of visual similarity between the dress of the widow and the bunchy figure of the cassowary ; but on another occasion an informant said this dream indicated that you would kill a pig. Presumably, therefore, the connection is of some other kind, and the dream may be taken as an omen of general success in hunting. Other conventionalized interpretations were as follows : to dream of a falling coconut meant death (because, as it was explained, coconuts were allowed to fall during mourning, since the trees were under tabu) ; and to dream of tobacco meant meeting a snake. The last mentioned, which was verified as a conventionalized interpretation, becomes clear on the explanation offered by the natives themselves ; for the tobacco leaf is rolled into long snake-like twists which may measure as much as seven feet. A last example, for which I can offer no explanation, is that dreaming of the *raggiana* Bird of Paradise means death.

(*c*) *Universal Interpretations.*—We come lastly to consider the possibility of universal interpretations. In the case of individual interpretations it is obvious that we may encounter great variety even within one and the same culture. If by some marvellous coincidence two fellow villagers happened the same night to dream identical dreams which were otherwise unique, they might, in the absence of precedent, interpret them quite differently next morning. We can only say that the culture to which they both belonged would impose certain limits to the choice of interpretations. The conventionalized interpretations, on the other hand, are more or less constant within any given culture. If our two friends dreamed identical dreams for whose interpretations there *was* a precedent, then their interpretations would be likely to correspond. If, however, the men belonged to different cultures, these interpretations, while both conventionalized, might well be different. Yet sometimes—and this is the point—they may be the same.

It is when we come to consider identical dreams in different cultures and find their interpretations to be the same that the possibility of a universal basis of dream interpretation arises. It appears plain that such universal interpretation, if it exists at all, will apply only to generalized dreams. Those of a more specific nature, together with the detail contained in them, will be interpreted variously in various cultural settings.

[5] It appears from this that Ahuia might have hazarded a prediction from his dream about the wave which enveloped Port Moresby, unless perhaps the general statement arose from his own particular experience.

The instances I have collected may be too few to help much in solving the problems raised, but that need not deter us from discussing them. To account for correspondences, where they occur, there is always the possibility of culture transmission; and against this may be set the other explanation, viz. the fundamental identity of mental processes among peoples of all cultures. It should be remembered that in this paper I am dealing with the interpretation of dreams at the overt, conscious level, and not with their functional significance from the psychoanalytic standpoint. Yet, considering only these surface interpretations, it seems to me that the theory of psychological identity often has the balance of plausability on its side.

If an Orokaiva and a Morehead native, at opposite ends of the Territory of Papua, both dream of a big fire and both interpret it, as they do, to portend a " big sun ", i.e. a dry season, is it not more plausible to assume that this is a simple feat of comparison between fire and sun than that it is an idea which they have both acquired from some common source by transmission?

Again, if an Orokaiva and a Suau both dream of a sinking canoe and of people sinking with it, and both take it as an omen of death, such an interpretation seems almost natural, indeed as near reasonable as any dream interpretation can be. It is hardly necessary to invoke the theory of culture transmission to explain it.

Or, if an Orokaiva and a Motuan both dream of a large collection of stones, and both see in it (these are actual cases) the promise of a large collection of yams, is this a conventional interpretation which the Orokaiva and the Motu have learned from a common source, or is it not more plausibly a simple comparison which, owing to the resemblance between yams and stones and the fact that both parties are deeply interested in yams, leaps naturally into the mind of each?

I must confess that the specific correspondences between the dreams recorded from the different cultures here dealt with are remarkably few. But one is struck by the number interpreted as portending (1) success in hunting, (2) death, and (3) good or ill success in gardening. Could there be any three subjects of greater interest to the people we are discussing? The dreams they dream are multifarious; the interpretations are few and generalized. They tend to fall into a limited number of categories—those in fact which are of foremost interest to people who belong to the general culture level and environment of Papua.

The interpretations therefore would seem to have this much of uniformity about them, that, whatever the dream—and it may be unique or outlandish—its meaning is probably allocated to one or other of the few major categories of interest.

Practically all Papuan peoples are intensely interested in hunting and gardening; certainly all are intensely interested in death. If, therefore, their dreams mostly point in these directions, it is by virtue of what will seem a very natural tendency. For where, as in Papua, the general conditions of life are to some extent uniform, the dream interpretations from different cultures are quite likely to correspond. The identity, where it exists, is due to a general identity of method, coupled with a general identity of conditions.

To refer to a " type " dream by way of example, I find I have made only one note in the field of the tooth-losing dream, and I cannot remember whether it was a real dream or whether I actually put a leading question. At any rate the interpretation placed upon it by my informants (Morehead natives) was that somebody would die. And what else, it might be asked, would one expect them to say? Now as I write these words, I call in my office boy, a Motuan, and proceed to question him about dreams. Having satisfied myself by a few preliminaries that he dreams like other people and is in the habit of interpreting his dreams, and having heard a few concrete interpretations, I deliberately ask him how he would construe a dream in which he lost a tooth. He answers without hesitation that it would be *gware*—a sign of death or misfortune—that one of his people would die. Has anyone, I inquire, told him this, or has he ever heard of such a dream? No, he just thought it himself. I fancy we must assume that the identity of interpretation here owes nothing to transmission.

Fig. 1. *Group of Hanuabada (Port Moresby) men decorated for the dance. They wear brightly-coloured feather head-dresses, which bob about fantastically as they shuffle along. Armlets of polished shell adorn two men; one has a boar's tusk suspended round his neck; his companion at the other end has donned a necklace of dogs' teeth. The men beat the measure of the dance by rhythmically tapping the drums, one end of which is covered with lizard skin.*

By courtesy of the Australian Museum.

Fig. 2. *Dubu or open club-house of Hanuabada village (Port Moresby). The tabu and certain other festivals centre round this structure, which at ceremonial periods is the object to which all eyes continually return. Expert craftsmen have carved and painted the dubu posts, the ends of which represent in conventionalized form the crab or lobster claw.*

By courtesy of the Australian Museum.

Fig. 1. *The "mummy" in situ.*

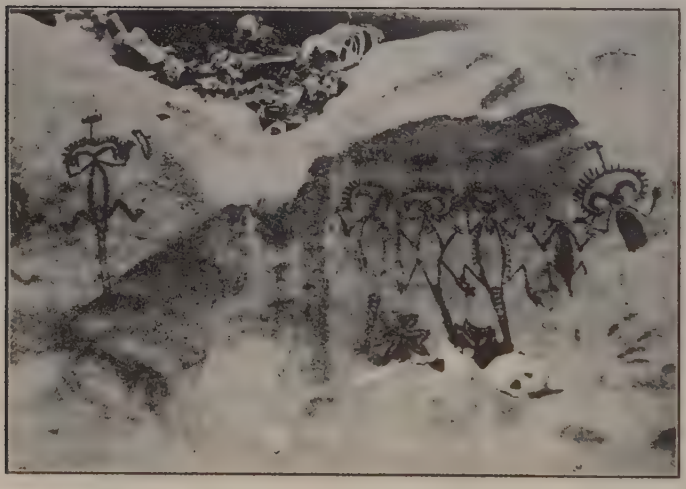


Fig. 2. *Buang cave paintings. The Maltese cross hidden by skull has five arms.*

It is of course freely admitted that certain conventionalized interpretations may be bandied from culture to culture, and that they may be of great antiquity and wide distribution. I was struck by the correspondence between one of my own cases and several given by Dr. Firth from Tikopia.[6] A dream of human excrement (more specifically of diarrhœa) was interpreted by an Orokaiva dreamer as foretelling a large catch of fish. This may be, as many others undoubtedly are, a case of transmission, for the mental connection seems so far from obvious. Yet, as Dr. Firth remarks, a psychoanalyst might be able to throw some light on the matter. It may be in fact that even here we are dealing with identical mental processes, viz. an obscure comparison between excrement and fish which has occurred to different minds independently. But I do not propose even to touch upon psychoanalytic symbolism. For the purpose in hand, viz. the study of overt, surface interpretation of dreams, it seems unnecessary to call upon psychoanalysis. This provides me with one good reason for refraining; the other is that I know so little about it.

Without employing this method I have suggested a manner in which dreams may come to demand interpretation in the first place, and have gone on to suggest the bases for the interpretations themselves. The first, I suggest, might derive, through the medium of retrospective interpretation, from the universal tendency to link consecutive happenings causally. If it is not actually a case of *post hoc ergo propter hoc*, it is at least thought that the first happening " had something to do with " the second; in this case, that the dream had something to do with the ensuing event. The interpretations themselves may be founded on actual coincidences, or on the association of ideas, the dream being felt to possess something in common with the event or conditions of affairs to which it points. This association of ideas is equally, I take it, a fact of universal psychology. If these explanations are sound, then it is shown incidentally that the same invention may well be made many times over, for the attribution of prophetic value to dreams is itself an invention; and the points of identity in dream interpretations from different cultures may often be attributable, with all due regard to cultural conditioning and the fact of cultural transmission, to the fundamental similarity of all human thought.

F. E. WILLIAMS.

New Guinea: Ethnology. **McWilliam.**

Disposal of the Dead in the Buang Mountains, Morobe District, Mandated Territory of New Guinea.[1] *By N. D. McWilliam, Department of Native Affairs, Mandated Territory of New Guinea.*

During the latter half of 1935 several articles appeared in various Australian papers reporting the discovery of certain so-called " mummies " in limestone caves in the Buang Mountains, Morobe District, Territory of New Guinea.

In November, 1935, I accompanied Mr. L. G. Vial, Patrol Officer, on a patrol through the Buang Mountains, and while at Mapos, a native village some two thousand feet above the Snake River, we spent several days inquiring into the former customs of these people regarding the disposal of their dead.

Interrogation of several old men in the district revealed that the customs as related below existed from time immemorial (as far as these people know) up till about ten years ago. Two theories were put forward in explanation of the discontinuance of their old custom of disposing of the dead, and the adoption of the burial custom as we know it.

The old native Tol, paramount luluai of the Buang villages, claims that he was the first native from that district to travel to other parts of the Territory as a labourer. Whilst away, he noted our burial custom, and on his return to his village about fifteen years ago he persuaded the natives to adopt the Christian form of burial.

[6] R. Firth, " The Meaning of Dreams in Tikopia ", p. 63, *Essays Presented to G. Seligman.*

[1] See also E. L. G. Thomas, " The Mopos Mummies ", *Man*, XXXVI, 1936, 18.

On the other hand, the native mission teacher Ibei, who has been stationed at Mapos for many years, claims that with the coming of the Lutheran Mission to these parts, the natives decided to adopt the Christian form of burial. I am inclined to support the latter theory. At any rate, it seems fairly definite that the old method of disposal of the dead was discontinued about ten years ago.

The chief objection to the adoption of the Christian form of burial was the fear of the ruination of the yam crop. Yams are the staple food of these people, and their belief was that should a body remain for ever in the ground, the spirits of the dead would be displeased, and would ruin the yam crop.

According to the old custom there were three methods of disposal of the dead.

(1) In the case of the death of an infant, a female, or a man who had been more or less a nonentity, the procedure was as follows : The relatives and friends of the deceased gathered round the house in which the body lay and mourned and wailed for two days. On the following day a hole, roughly two feet six inches in diameter and seven feet deep, was made outside the village. The body was placed in a crouching position, knees drawn up near the chest, elbows into side, and hands clasped under the chin. Various ornaments, as worn when alive, were placed on the body, which was then tied in position with rope, wrapped in *tapa* cloth, and then bound with grass (*Imperata arundenaccia*, commonly known throughout New Guinea as *kunai*). One man, either a relative or close friend of the deceased, carried the body to the hole, with other friends and relatives following behind. Two pieces of wood were placed in the hole, one piece horizontal, and the other vertical, the latter protruding slightly above the surface of the ground. The body, having been placed in this temporary grave, was covered with more *kunai*, two large flat stones were placed on top of this, and the remainder of the cavity was filled with earth. The first part of the burial was complete.

The body remained in the hole for approximately five months, at the end of which time all but skin and bone had decomposed, the former having hardened into a form of parchment. The grave was then opened, the body taken out, and more *kunai* was added. The bundle was then tied to a pole and carried to the limestone cliffs, which are the final resting place of the dead, hereinafter called the " burial cliffs ". There was no mourning attached to this part of the ceremony, but several old men followed the body to the burial cliffs to act as moral support for the carriers.

At the burial cliffs, the position occupied by the body depended on the status of the deceased when alive. Children and females were placed at the foot of the cliffs or on the lower ledges ; men who had died without having achieved any particular renown were placed on higher ledges, and those men who were considered to have been truly great were placed on the top ledges.

(2) In the case of the death of an infant under the age of about two years, the procedure was considerably simplified. A large bamboo pole was bound firmly round with native rope about six feet from one end ; the shorter end was split into about fifteen or twenty pieces and splayed out to form a basket, smaller pieces of bamboo being secured to form ribs, thus keeping the basket in shape.

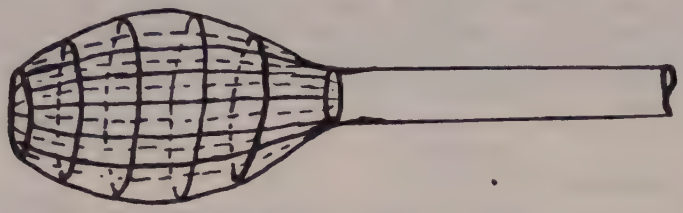
The body was wrapped in *kunai*, placed in the basket, and the complete bundle carried off to a separate burial cliff reserved for the accommodation of deceased infants.

(3) The third form of burial was that used in the case of the death of a great warrior or a man who in some way or other had won renown.

The deceased was adorned in his fighting or dance garb and, together with his weapons, etc., was placed on a high platform just outside the village. Small punctures were made in the skin to speed up decomposition, and the body remained on the platform unprotected from the weather for about one month, after which time the skin had hardened. As described in the first case, the body was then wrapped in *tapa* cloth, covered with *kunai*, and carried off to the burial cliffs.

On our suggesting that we should visit these old burial places, the natives appeared to have no objections, but when we asked for volunteers to come with us and show us the

places in question there was no response, and the mission teacher Ibei, who would no doubt have obliged, was away at the time. However, we eventually persuaded two of the more sophisticated natives to come with us and point out the burial places, though they would not come right up to the spot.



Funerary container for corpse of infant.

Three of these mortuary places were visited, all being in inaccessible, out-of-the-way places.

The first visited was that apparently reserved for the burial of infants. It was on the side of a hill, inconspicuous, but not entirely hidden. There we found several bamboo poles resting with one end on a ledge of rock and the other end containing the body resting up against the cliff face. On opening one of these " baskets ", all that was found was a layer of *kunai* about two inches thick, an ant's nest, a small grass skirt, a few bones, and the remains of a very thin skull.

The second place visited was apparently one which had been in use for some time previous to the discontinuance of the custom. The limestone cliffs rose to a height of about one hundred and fifty feet, with several ledges jutting out five or six feet at varying heights. It was obvious that at one time the ledges had been much larger and more plentiful, but, due to some cause or other, probably earth tremors, combined with the soft nature of the limestone, they had cracked off.

At the bottom of the cliffs, in amongst the huge rocks, we found several human bones and skulls, mostly broken. We could only get on to one ledge, which was about half-way up the cliff. Here we found several *kunai* bundles, all, I presume, containing human remains, though we only opened two. Lying in among them were several broken drums, and also several light poles which bore marks made by a steel instrument. As these people could not have known steel for more than fifty years at the most (the Lutheran Mission, the first to penetrate the area, only settled on the mainland fifty years ago), the fact that these poles bore the marks of steel definitely proves that some of the bodies are less than fifty years old.

On opening one of these *kunai* bundles, we found everything as it had been described by the natives. The other one we opened, however, revealed more than we had been told. The skin on the trunk of the body was unbroken, but on breaking the skin the inside of the body was found to be stuffed with *kunai*. As the skin was unbroken, the *kunai* found inside must, I think, have been inserted through the anus.

The third and last place visited was the most inaccessible. From a fast flowing creek, the limestone cliff on one side rose almost perpendicular to a height of about two hundred feet. About fifty feet up from the creek was a large shallow cave and at the bottom of the cave a ledge jutted out about ten feet. This ledge was covered with broken drums and *kunai* ; at the back of the cave were three smaller ledges, and on these lay the remains of many human bodies.

The most noticeable feature of this particular place was the fact that the walls of the cave were covered with drawings. These drawings seemed to be combinations of human beings and large lizards, having a head resembling a human (though crudely done), four legs and a long tail. In between some of the drawings several Maltese

crosses were fairly symmetrically drawn, except that some were four leafed and some five leafed. All drawings were done with some red substance which would not rub off.

Several old men were questioned about this particular burial place, but none of them seemed to know anything about it. However, the mission teacher, Ibei, stated that some years ago an old man (now deceased) told him that this was the older place for the disposal of the dead, and had not been used for the last seventy years. I am doubtful whether this is true, because although the poles on the ledge certainly bore marks of a stone implement, yet we found a very small piece of red cloth, which fact rather tends to discount the truth of the story that this particular place of final repose had not been used for seventy years.

N. D. McWILLIAM.

Australia: Linguistics. **Whitley.**

Aboriginal Names Mostly of Marine Animals from North Queensland. *By Gilbert P. Whitley.*[1]

When collecting fishes and other marine creatures at Lindeman Island, Cumberland Group, Queensland, I obtained their native names in the aboriginal language of the Whitsunday Passage districts from "Mugera" (Billy Mackenzie) and Frank, two natives now resident there.

Over one hundred names of both mainland and island species are included in the following vocabulary. Other duties prevented me from compiling a longer list or trying to learn more of the language. This list shows that the aborigines discriminated between closely allied species (cf. Stingaree), and they also had names for various stars, bays, headlands, currents, clouds, and other natural phenomena. The more general side of their ethnography has been detailed by Ling Roth.

FISHES.

Blue Groper or Tuskfish (*Chærodon*)	Būnga, Bulnga.
Bony Salmon or Chinese Herring (*Chanos*)	Wilgibaia, Kañgūra.
Catfish (two kinds)	Būrūna, Bukkariba.
Codfish	Nūimon.
Coral Cod (*Plectropoma*)	Gūlmūlā.
Coral Fish (*Holacanthus*)	Buibunā.
Coral Fish (*Parachætodon*)	Buiko-buiko.
Dart or Yellowtail Trevally (*Trachinotus*)	Mulubuna.
Devil Ray (*Dæmomanta alfredi*)	Muñguna.
Diamond Fish (*Alectis*)	Diang-gubba.
Eel, freshwater (*Anguilla*)	Woggari.
Eel, coral reef (*Gymnothorax*)	Yumuna.
Eel, black-spotted (*Gymnothorax favagineus*)	Bukkaia.
Flathead (two species of *Suggrundus*)	Wallira.
Flounder (*Pseudorhombus*)	Dariada.
Garfish	Dalengi.
Government Bream	Wirrainbeia.
Grunter	Yeranduna.
Herring (*Harengula*)	Waudamurra.
Herring, shoaling	Gudjellā.
Hussar	Dūmbannā or Girrā.
Long Tom (*Strongylura terebra*)	Mougwia, Moguyā.
Mackerel (*Cybium* sp.)	Gaibirra.
Mackerel (*Cybium commerson*)	Wuduna.
Mackerel (*Cybiosarda elegans*)	Gowilla.

[1] The author is ichthyologist to the Australian Museum, and the article is published by permission of the Trustees of the Museum.

Mullet (three species)	Giddanna, Danduru, Garragunnā.
Parrot Fish (*Chærodon*)	'Yaouna.
Parrot Fish (*Pseudolabrus*)	Iriba.
Pike, small	Mwuyu-mwuyu.
Pike, large	Lulunda.
Pyjama Fish or Striped Bass (*Lutjanus*)	Girra.
Queen Fish (*Scomberoides*)	Tulara, Duladda.
Red Bream of the mainland	Wulgideia.
Red Emperor	Wirrainbeia.[2]
Rock Cod (*Epinephelus merra*)	Gudira or Bindura.
"Salmon" of the mainland	Gāngmura.
Sawfish	Dindagubba.
Sharks (four kinds)	Kumbunda, Gulibulu, Muggi, Millidulu.
Shovelnose Shark	Wurubindu.
Slate Bream (*Plectorhinchus*)	Yindari.
Snapper	Yurrunduna.
Snapper Bream (*Lethrinus*)	Yairkunna.
Sole, sand	Demari-amaro.
Sole, reef (*Cynoglossus*)	Darila or Gurkunna.
Spinefoot (*Amphacanthus*)	Mia Mia.
Stingaree (*Tæniura*)	Otaganna.
Stingaree, cowtail (*Pastinachus*)	Weralli or Guergunna.
Stingaree (*Dasyatis*)	Yaguri.
Stingaree, spotted eagle ray	Ungurru.
Stingaree, longtailed	Wulura.
Stonefish	Mujina.
Swordfish	Guanna, pronounced Gwunnah.
Sucker Fish	Walla Walla.
Surgeon Fish (two species of *Teuthis*)	Wurgigubba, Mougummerli.
Tiger Mullet	Guluda.
Toado (*Ovoides implutus*)	Bulundi.
Toado (*Sphæroides* spp.)	Riddundi.
Trevally, large	Dungurra.
Trumpeter (*Terapon*)	Milgibaia.
Tunny	Gigorri.
Weather Fish (three species *? Platacidæ*)	Badina, Burmunna, Yeru.
Whiting (*Sillago*)	Dairbaia.

REPTILES.

Goanna (two kinds)	Dukanya, Gumarri.
Lizard, Blue-tongue	Wurgula.
Snake, general term	Waiwura.
Snake (*Boiga*)	Nigunna.
Snake, Sea	Wurija.
Turtle, Flat-backed	Gulmunnā.
Turtle, Greenback	Diwaia.
Turtle, Hawk's-bill or Shellback	Maeyila.
Turtle, Loggerhead	Dindiluna.
Turtle, Luth or Keelback	Gorguia.

MARINE INVERTEBRATES.

Bailer Shell	Buduru.
Black-lip Oyster	Arballanā.

[2] *Wirrainbeia* is also used for the Government Bream, an allied species. The old native name for Lindeman Island was *Yakaima*, another name for the Red Emperor.

Black-lip Pearl Shell	Gūlurumon, Gūlarimon.
Cat's Eye Shell (*Turbo petholatus*)	Wudu-Wudu.
Clam (*Tridacna*)	Nunga.
Coral, Madreporarian	Bilbunna.
Coral, Organ-pipe (*Tubipora musica*)	Wirranā or Bilbunna wirranā (literally red (wirrana) coral).
Coral (*Dendrophyllia nigrescens*)	Mudul-mudul.
Cowries	Bunugurru-ā.
Crab (general term)	Gūngwiya.
Crab, Sand (two kinds)	Imbuna and Gayalligunna.
Cuttle (two kinds)	Dalañguna, Gujermo.
Giant Conch (*Megalatractus*)	Dunbalā.
Mutton Shell (*Haliotis* spp.)	Gūlgai-gūlgarn.
Mutton Shell (*Haliotis asinina*)	Kwikan-kwikan-ā.
Nautilus	Yerumbinnā.
Oyster	Yiundalla.
Painted Lobster	Wūngunura.
Prawn	Buddi-buddi.
Razor Shell (*Pinna*)	Giuri (two syllables).
Sea Fern (*Gorgonia*)	Widda-widda.
Slate-pencil Sea Urchin	Gudiri-gudiri.
Spider Shell (*Lambis*)	Daruba.
Starfish	Dingiula-dingiula.
Trocas Shell	Gulira-gunnā (accent on last syllable).

GENERAL.

Butterflies	Bukā-bukā.
Greeting, good day	Malannandu.
Good-bye	Ganniu.
Yes	Ino.
No	Gunya.
Thank you	Mununundu.

GILBERT P. WHITLEY.

ANTHROPOLOGICAL SOCIETY OF NEW SOUTH WALES: PROCEEDINGS

The Darwin Centenary Evening. *Account of a meeting held at the University of Sydney, 13th March,* 1936.

On the 13th March, 1936, the Society co-operated with other scientific societies in the celebration of the visit of Charles Darwin to these shores in the year 1836. A combined meeting was held in the Union Hall at the University of Sydney, and lectures were delivered on " Darwin and Natural Selection " by Prof. R. D. Watt, M.A., B.Sc.; and on " The Life of Charles Darwin " by Dr. Chas. Anderson, M.A., D.Sc.

French Oceania, Past and Present. *Summary of a lecture delivered before the Society by Mr. Eric Ramsden on 21st April,* 1936.

After tracing the history of Tahiti and adjacent islands from the first phase of contact with Europeans, the lecturer dealt, in detail, with the Tahitian rulers from Pomare II, or Tu (whose father had received Captain Cook), until the reign of his grandson, Pomare V, the last monarch. He explained how the missionary autocracy, so intolerant towards other nationals, at last resulted in France taking possession of the islands.

By the irony of fate, however, he declared, it would now seem that the French, in turn, would give way before the Chinese. Already the Asiatics were in commercial supremacy in French Oceania, and were rapidly increasing in numbers and in wealth. The Tahitian-born, stationary in numbers, felt, with good

reason, that the land was slipping beneath his feet. A superb fisherman and a capable agriculturist, he cannot withstand the business acumen of the Chinese and their lower standard of living. It was pathetic to see the Tahitian making his last stand against the Chinaman in the Papeete market.

By way of contrast to the present-day Tahitian attitude towards his own colourful history, the lecturer emphasized the intense interest of the modern Maori in all that pertained towards his past. He gave several reasons for the present position. Firstly, the interference by the French with the principle of hereditary chieftainship. Natives were selected as chiefs for administrative posts by the French, not because of inherited rank, but for potential use politically. Secondly, the French had shown no reverence nor any desire to preserve the *marœ*, or places of ancient worship. Such monuments of the past as Mahaiatea, once one of the celebrated temples of Tahiti, had been deliberately despoiled, and the sacred stones used for the construction of roads and bridges. The lecturer also spoke of a visit to Taputapuatea, near Opoa, on the island of Raiatea, from which *marœ* stones were once taken by the Polynesians to consecrate other places of ritual thousands of miles distant. Taputapuatea, once the most sacred of all *marœ* in Eastern Polynesia, was today a neglected ruin, and no attempt had been made to preserve this important link with the past.

He also referred to the low educational standard in French Oceania, and the fact that, under French rule, no Polynesians had risen to posts of eminence in the learned professions. No men of the mental calibre of such Anglo-Polynesians as Sir Apirana Ngata, Professor Peter Buck (Te Rangi Hiroa), Sir James Carroll or Sir Maui Pomare had appeared to guide their people through the difficult period of transition.

Further, the speaker expressed deep regret that Tahitians were not included in the scheme, sponsored very largely with grants from the Rockefeller Foundation, for the preservation of native health in the Pacific. While young men of rank were sent from the Cook Islands, Samoa, Tonga, and even from the distant islands of Melanesia, to the Central Medical School at Suva, Fiji, where they qualified as native medical practitioners, there were no representatives from Tahiti and French Oceania generally. He applauded the wisdom of the New Zealand Government in sending an Anglo-Polynesian of the ability and foresight of Dr. E. P. Ellison to Rarotonga, where, by his deep understanding of the peculiar Polynesian psychology, he had done much to overcome the natural antipathy of the Cook Islanders to enter European hospitals ; also the decision of that Government, after the annexation of the Cook Islands, to prevent the entry of Chinese.

In conclusion the speaker made reference to the island of Raiatea, the importance of its principal *marœ* in the eyes of Polynesians thousands of miles away, and to the elaborate ritual that took place there in pre-European days ; also to the visits of the ceremonious *Areoi*, or bands of strolling players. Though the presence of the latter was always welcomed by the natives, he added, they were regarded by the missionaries as " privileged libertines " and, finally, bowing to European judgment, such interesting cultural influences were swept away for all time.

Papuan Dream Interpretation. *Summary of a paper by F. E. Williams, M.A., B.Sc., read before the Society by F. L. S. Bell on the Thorpe Memorial Evening, 16th June,* 1936.

For a full transcript of this lecture the reader is referred to page 29 of this issue of the Journal.

The Fire-Walkers of Benga, Fiji. *Summary of a lecture delivered before the Society by Mr. John Powell on the Thorpe Memorial Evening, 16th June,* 1936.

" Some years ago I was privileged, while on a visit to Fiji, to witness the fire-walking ceremony. While I am not prepared to offer any opinion as to the origin of the ceremony or any solution as to why these men are able to walk unharmed on white-hot stones, I do know that I personally would be quite incapable of such a performance. I will simply relate what I saw.

" A large round shallow pit, about 15 to 20 feet across, was dug in the ground and the bottom was covered with large flat stones. In this pit a roaring fire of logs was prepared, and remained burning for about 24 hours, until the stones became white hot. When the ceremony was ready to commence the ashes and burning *débris* were brushed away by the natives with long poles with large loops at the end. The fire-walkers and their assistants were now ready. They were dressed in the regalia worn at such ceremonies, being bare to the waist and having festoons of coloured native grasses and leaves hanging from their hips. On the bank near the fire sat a crowd of native sightseers. Before the walking commenced the crowd chanted a weird dirge, to the accompaniment of a native orchestra. Several orations were made by the head man, which had the effect of working everyone into a great state of excitement. Then the performers advanced towards the pit and walked solemnly round on the white hot stones. This was apparently done without any discomfort to the performers. After the walking, the ground was covered over with green branches. Food, composed of native roots and other delicacies wrapped in banana leaves, was then placed on the stones and covered with earth. The food was thus roasted in preparation for the great feast that was to follow.

" As far as I was able to judge, the feet of the fire-walkers were not specially prepared. The soles were quite bare, and after the performance there was not the least sign of burning or scorching. The distance covered by the walkers would be from 45 to 60 feet, and the journey occupied from four to five seconds. Only members of one tribe can accomplish this feat. They belong to the isle of Benga, which lies to the south of Suva.

" There is a legend, told in verse by T. W. Davidson, which tells us that when the great chief Galita was digging a hole, he unearthed a dwarf, whom he condemned to be baked on red hot stones. The dwarf, after being placed on the hot stones, stepped nimbly to and fro on them, and bade his captor follow him, which he did without injury. Thus the mystery was revealed, and has ever since been handed down within this tribe."

The Secret Life of a New Guinea Melanesian People. *A lecture delivered before the Society by W. C. Groves, B.A., Dip.Ed., on 19th May,* 1936.

A summary of this lecture will appear in a later issue of MANKIND. The paper aroused much interest, and was discussed by the President, Dr. Elkin, Miss C. Wedgwood and Mr. F. L. S. Bell.

REVIEWS

Papuans of the Trans-Fly. *By F. E. Williams, M.A., B.Sc. Clarendon Press, Oxford,* 1936. 445 *pp., maps, diags., plates.*

As the author confesses in the Preface, this account of native life as it is lived today in the Morehead district of Papua is a general survey along conventional lines rather than an intensive analysis of some particular phase of the culture. It is questionable whether the " survey " method is the more satisfactory way of presenting ethnographic data, but readers of this book who crave after detail should surely console themselves with the fact that Dr. Haddon considers that " it is not very probable that other tribes of the area will be studied as fully or as carefully in the future ".

The geographical background and social structure of the Keraki tribes have been minutely outlined, and such matters as totemism, exchange-marriage and exogamy are given special attention.

A particularly interesting fact disclosed by Mr. Williams is the presence of ritual sodomy in this culture. Sir Wm. McGregor indignantly denied the existence of such customs, but " there is, indeed, no question as to the universality of the practice " (p. 158). As in Malekula, it is a prominent feature of the male initiation ceremonies.

Economics, warfare, magic, myth and death all receive due consideration, and the description of the head-hunters' raid is one of the best accounts of primitive warfare extant.

The book as a whole is a scholarly record of a long period of work among a comparatively unknown and untouched native people. One would not be praising it too highly to bracket it with Landtmann's " Kiwai Papuans " and Seligman's " Melanesians of British New Guinea " as one of the essential sources of ethnographic information for this area.

F. L. S. BELL.

Black and White in East Africa: The Fabric of a New Civilization. *By Richard C. Thurnwald, with a chapter on " Women " by Hilde Thurnwald. London: Routledge,* 1936. 419 *pp., xvi plates.*

This is a study in social contact and adaptation of life in East Africa, carried out by an anthropologist with a wide reputation for careful work in the field and equally acute analysis of the data observed.

After reviewing the aboriginal culture of the an-Iramba, a typical East Agrican tribe, the author gives a brief account of present administrative conditions and their effect upon the economic structure of the people.

Frau Thurnwald discusses the changes which have taken place in the family life of the natives and in the status of their womenfolk. She sees in Christianity a disruptive cultural force, " emancipating the woman from the control of family and clan and reducing her sole responsibility to that of her faith and her conscience ". Anyone who knows the peculiarly close bonds which unite kinsfolk in primitive society will certainly support Frau Thurnwald's conclusion. In a community where all the natives are professing Christians, this danger is not so serious, but in East Africa, where missionary influence is but sporadic, a condition of psychological instability is the almost certain consequence of the spread of Christian teaching.

Professor Thurnwald enlarges upon the changes which have overtaken the religious life of the native in the following chapter, and then examines the methods and principles of present-day native education.

In the final chapters the author traces the changes which have occurred in the Asiatic element of East African social life, and concludes his work by an evaluation of the aboriginal native mentality. " The change in the *overt behaviour* of the African is beyond doubt, but how far is this change reflected in the mind of the native ? "

To a reader accustomed to the glib conclusions of many writers on this question of culture contact in Africa, the carefully documented work of Professor Thurnwald and his wife comes as a revelation of the multiplicity of factors which bear upon the problem. Such a study as this will certainly stand for some time as the most truthful and least prejudiced account of the social position of the modern East African.

F. L. S. BELL.

Adoption in Wogeo, New Guinea. *By H. Ian Hogbin. Jour. Polyn. Soc., XLIV,* 1935, 208-215. and *XLV,* 1936, 17-38.

Adoption is an extremely common practice in Wogeo, where there are no ceremonial, but rather personal and practical reasons for the custom. Amongst these are sterility, linked with the deep-rooted human longing to rear if not to bear children of one's own; a desire to prevent the ancestral lands from falling into alien hands; a wish to ensure sufficient help in one's economic activities, and a

longing to provide for a comfortable old age by rearing a grateful family. The transfer of children takes place only between relatives, and the child, adopted when a baby, is brought up in ignorance of its true parentage. The attitude of real and foster parents and the community in general towards the adopted individual, and his own feelings, if he "finds out", are interestingly discussed.

E.B.

Notes on Native Evidence and Its Value. *By T. G. Strehlow. Oceania, VI,* 1936, 323-341.

A native will not hesitate to lie or give an evasive answer to any white man whom he regards as a stranger or unsympathetic to his cause. Suspicion is a natural reaction to interrogation by whites as a result of the treatment meted out by them to his people. But reliable evidence is forthcoming if the interrogator has won the native's respect and confidence.

E.B.

Mana. *By H. Ian Hogbin. Oceania, VI,* 1936, 241-274.

An account of certain religious and magical conceptions associated with the spiritual power termed *mana*. The spirits and their powers, and the magical practices found in Guadalcanar and Malaita, being homes of *mana*, are first considered. The author then describes the religious and magical beliefs of Ontong Java and Wogeo, where the concept is not known, in order to show that it is not a universal phenomenon in primitive religions.

E.B.

The Landowners in Northern Aranda, Central Australia. *By Olive Pink. Oceania, VI,* 1936, 275-305.

The story of the tribal ancestors, the relationship of the individual and the tribal groups to their ancestral totemic estates, and the mythological basis for the laws of land inheritance are given in outline. The father's father, both modern and *altjeringa*, is shown to be the keystone of spiritual, social, economic and land-owning life.

E.B.

Head Dances of the Turama River. *By Leo Austen. Oceania, VI,* 1936, 342-349.

An investigation of the origin of the oval, carved boards to which skulls are strung, termed *agibe*, led to a discovery of the nature of their association with the head dances and songs of the district. The *mipa*, *barari* and *bagoi* dances described in detail by the writer are the prominent features of the ceremonial following the capture of a head by a tribesman; their chief function appears to be the purification of the man who has taken human life.

E.B.

The Avoidance Situation in Tanga. *By F. L. S. Bell. Oceania, VI,* 1935, 175-198, 306-322.

An important part in the regulation of social behaviour is played by rules of avoidance, which, in Tanga, are connected with kinship, sex, ceremonial observances upon birth, initiation and death, economic pursuits, totemism, and other miscellaneous matters such as rank and personal sanctity. Kinship taboos all evolve from the brother-sister avoidance. In the economic sphere, restrictions are involved in the production, distribution and consumption of food, including gardening, fishing and canoe-making activities. It is suggested that the positive value of taboos is felt as fully as the fear inspired by them.

E.B.

The Making of a Marrngit. *By T. Theodor Webb. Oceania, VI,* 1936, 336-341.

The *marrngit* is the beneficent medicine man of East Arnhem Land. He relieves suffering and reveals the sinister operations of the *ragalk* or evil sorcerer. The way in which an individual acquires such powers is told in an account by a professed *marrngit*.

E.B.

The Arabs of Central Asia: Their History, Ethnology and Physical Characters. *By Henry Field, with Introduction by Sir Arthur Keith. Anthropology Memoirs, Field Museum of Natural History, Vol. IV, pp.* 494, 156 *Plates,* 48 *text-figures,* 3 *maps.*

Mr. Henry Field, M.A., an American member of the Society, has just completed a monograph on the Arabs of Central Iraq. Anthropometric data concerning 731 individuals are given, in addition to a description of their history and ethnology. In the introduction, Sir Arthur Keith discusses the physical relationships of the Arabs and other Mediterranean peoples. The work is part of a comprehensive programme of anthropometric research on the racial composition of the peoples of the Near East, which will elucidate many problems connected with the history of the peoples of Asia, Africa and Europe.

There are 156 beautifully produced plates depicting the various physical types encountered.

F. D. McC.

CORRESPONDENCE, NOTES AND NEWS

The Australian Anthropological Association.

In accordance with instructions from the President, the Honorary Secretary of the Society, in May, 1935, notified the Victorian and South Australian societies that our Society had adopted the Constitution and By-laws of the A.A.A., and had agreed to become affiliated with the A.A.A. when it is formed.

The Victorian Society, through its secretary, Mr. S. R. Mitchell, signified agreement with the Constitution sent to it, but the South Australian Society submitted a number of amendments to the Constitution. These amendments were considered by a sub-committee of our Society, and were incorporated in the proposed Constitution.

This new form of the old Constitution was again posted to Victoria and South Australia for consideration. The Victorian Society replied, in March, 1936, that it was being placed before a special sub-committee. The South Australian Society has not made any further move in the matter, but their secretary, Mr. Tindale, gave me to understand that his Society was in favour of affiliation, but was not yet determined upon the best method of bringing this about.

Trifles.

One of the golden rules of anthropological field work is that nothing is so trifling as not to be worthy of record. The author of this note, whilst watching a somewhat intricate funeral rite in New Guinea, saw, but failed to note down, what seemed to him a very ordinary act, i.e. the destruction of an old bamboo fence which surrounded the settlement wherein the ceremony was being performed. On checking over the events of the day later on with an informant, he discovered that the breaking down of the fence was a vital part of the rite, ignorance of which would have removed all meaning from several of the songs sung at the feast and many of the ritual acts there performed.

This is an example taken from work in the sociological field. The Editor feels sure that many of our readers can quote examples in the allied fields of physical anthropology and material culture. Accurate descriptions of unrecorded rock carvings and cave paintings and of stone implements of more than usual interest should not be allowed to remain unrecorded. The Editor would be pleased to publish them in the form of contributions to this section of the Journal.

Library Notes.

A further donation to the library from Mrs. Elizabeth Brettle includes two volumes by Will Durant, "The Story of Civilization" and "The Story of Philosophy", both of which make excellent reading for the member who, despite scanty leisure time, wishes to cover a wide field of reading. "Head, Heart and Hands in Human Evolution", by R. R. Marett, dealing with the vast variety of human experience from sociological, religious and economic viewpoints, was received from the same donor.

Movements of Members.

Miss P. Kaberry has recently returned to Sydney from field work in North-West Australia. She intends to devote the next two years to further study in London, under the guidance of Professor Malinowski.

Mr. Leo Austen, A.R.M. of the Trobriand Islands, Papua, is at present on leave in Sydney, and full of news of the megalithic structures recently discovered on the Trobriands.

Dr. Elkin, Mr. F. E. Williams, Mr. W. C. Groves (Melb.) and Mr. N. B. Tindale (Adel.) are, at the moment of writing, attending a conference in Honolulu relating to culture contact in the Pacific.

Mr. S. R. Mitchell, the Honorary Secretary of the Victorian Society, was recently in Sydney, and expressed the hope that he would see us all in Auckland in January, 1937.

The good wishes of the Society go to the Rev. David Rettick, of St. Stephen's Church of England, Hurlstone Park, who has recently been appointed rector of the parish of Grafton and sub-dean of Grafton Cathedral.

Printed and published for the Proprietors, The Anthropological Society of New South Wales, The Australian Museum, Sydney, by Australasian Medical Publishing Company, Limited, Seamer Street, Glebe, Sydney, N.S.W.